

Chapter 1 – Purpose And Need For Action

I. Purpose

This Environmental Assessment (EA) provides the public and agency decision makers with an analysis of the range of options to restore, enhance and protect wetlands and upland habitats within a new national wildlife refuge in Polk County, Minnesota. The EA also publicly discloses the direct, indirect, and cumulative effects of each strategy on the quality of the human environment, as required by the National Environmental Policy Act of 1969 (P.L. 91-90), as amended). The Interim Comprehensive Conservation Plan found in the Appendix presents a blueprint for management practices and public recreational opportunities on the proposed Glacial Ridge NWR.

Figure 1



II. Need for Action

Quality wetlands and native tallgrass prairie habitats are critical for a host of waterfowl and grassland migratory birds. These highly productive habitats should be protected or restored whenever possible. The proposed refuge is within the prairie pothole region, an intensely agricultural area known for its historically high waterfowl production. A high percentage of the original, pre-settlement wetlands of this area have been drained over the last century. Waterfowl populations are limited in part by the loss of these wetlands. In addition, several grassland bird species are declining throughout their range. The Service is the primary federal agency responsible for conserving these species. Recent research has shown that large blocks of grasslands such as those proposed in this refuge project may be key to reversing the downward trend.

Introduction

The Glacial Ridge National Wildlife Refuge (NWR) is being proposed as a means of preserving and restoring prairie wetland and grassland habitats for the fish and wildlife species dependent on them. The study area includes parts of Tilden, Kertsonville, Grove Park, Onstad and Godfrey townships of Polk County, Minnesota. The proposed refuge could eventually restore a landscape that includes 8,000 to 14,000 acres of shallow and deepwater wetlands, wet prairies and natural stream watercourses. The restored tallgrass prairie uplands, the glacial ridges, would provide breeding habitats for a myriad of migratory birds.

III. Background

Waterfowl and Wetlands

The majority of wetlands in the proposed Refuge area would be classified as palustrine emergent. This type of wetland has at least 30 percent emergent vegetation cover, such as cattails or rushes. Palustrine wetlands are shallow (less than 6 feet deep), and they are preferred by many species of waterfowl over deeper, open waters. Redhead, canvasback, ring-necked and ruddy ducks build nests in emergent wetland vegetation. Many more species enjoy the protection of emergent cover and the fish and invertebrate food sources which flourish in this environment.

In Minnesota as of 1990, it was estimated that 58 percent of natural, pre-settlement wetlands remained (Dahl 1990). Nearly two out of three wetlands in western and southwestern Minnesota are privately owned, increasing their vulnerability to drainage, development and pollution (Miller and Goetzinger 1993).



Restored wetlands on the proposed refuge will benefit migrating and nesting waterfowl. (USFWS photo)

Many wetlands have been drained for agricultural production. Others have been lost to housing developments, filled for highways and some have been lost to watercourse alterations and groundwater reductions.

Today, we have a new understanding of the valuable role wetlands play in ecology. Wetlands provide a host of direct benefits to humans including acting as natural filters for pollution and reducing the extent of flooding. In addition to being key habitat for migratory birds, wetlands can also serve as nurseries for a variety of fish species.

The wet meadow and open water habitats of the restored Glacial Ridge wetlands would provide feeding and nesting areas for local waterfowl such as the mallard, canvasback, redhead, blue-winged teal and gadwall. Brood production would be high based on observed current use of existing degraded habitats. Other wetland dependent birds, such as sandhill crane, great blue herons and egrets, would gain additional areas to feed and rest. Shorebirds of all kinds would use the shallow water and open meadows.

Tallgrass Prairie

Native prairie has declined 99.6 percent in Minnesota (Samson and Knopf 1994). Grassland bird species have shown steeper, more consistent, and geographically more widespread declines than any other group of North American birds (Knopf 1994). Fifty-five grassland plants or animal species in the U.S. are threatened or endangered (Samson and Knopf 1994).

The need for tall grass prairie habitat preservation and restoration has become more critical each year as the remaining native grassland fragments are removed and by the continuing declining status of many grassland bird species throughout their range. A

native prairie is an excellent example of biodiversity, with its complex web of plants, mammals, birds, reptiles, amphibians, insects, and microscopic organisms. Native tallgrass prairie habitats in Minnesota can contain over three hundred species of plants, twenty species of amphibians and reptiles, 260 species of birds and mammals and hundreds of species of insects, some so rare that only 8 of some species have ever been collected. Many of our most endangered plant and animal species reside on remaining prairie fragments. In fact, the remnant prairies within the Glacial Ridge study area contain some of the largest remaining populations of the threatened Western Prairie Fringed Orchid.

Despite a broad consensus supporting the conservation of biological diversity, native prairie is largely neglected and continues to be lost (Samson and Knopf 1994). Large expanses of native prairie vegetation in private ownership have all but disappeared in western Minnesota.

Grassland Birds

The original tallgrass prairie and prairie wetland complexes of western Minnesota were important habitats for countless migratory birds. However, the State of Minnesota has lost 99 percent of its original, pre-settlement prairies, and over 40 percent of its wetlands to farming and other land use activities.



Short-eared owls will find more prey within the restored prairie habitats. (Photo by David Menke, USFWS)

To varying degrees, grassland bird species have adapted and co-existed with agriculture for most of the past century. However, grassland bird populations are steadily declining in Minnesota and other upper mid-west states due to changes in agricultural practices, urban sprawl, introduced predators and other factors.

The following migratory bird species are listed as Resource Conservation Priorities by Region 3 of the U.S. Fish and Wildlife Service, and will benefit from the proposed project: Marsh/sedge meadow species – American bittern, least bittern, mallard, blue-winged teal, trumpeter swan, black tern, upland sandpiper, sedge wren, and northern harrier; wet prairie/tallgrass prairie species – field sparrow, grasshopper sparrow, bobolink, and short-eared owl. The area is used during the migration periods by numerous shorebirds, waterfowl, sandhill

cranes and tundra swans. Other birds known to use the area include Le Conte's sparrow, clay-colored sparrow, vesper sparrow, common snipe, western meadowlark and white pelican.

Farming practices have changed dramatically in the past 30 years. The grazing of the past has given way to large-scale row crop farming. The loss of hay and pasture acreage is strongly correlated with declines in grassland bird populations throughout the Mid-west.

The U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service as we know it today has evolved slowly with changes in the country's use of natural resources and growing respect for the environment. Today the Service is the primary federal agency responsible for conserving, protecting, and enhancing fish and wildlife and their habitats for the continuing benefit of the American people.

Specific responsibilities include managing the National Wildlife Refuge System, enforcing federal wildlife laws, managing migratory bird populations, restoring nationally significant fisheries, administering the Endangered Species Act, and restoring wildlife habitats such as wetlands.

"Working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people."

Mission of the U.S. Fish and Wildlife Service

The National Wildlife Refuge System

The National Wildlife Refuge System is the world's largest and most diverse collection of lands set aside specifically for wildlife. The refuge system began in 1903 when President Theodore Roosevelt designated 3-acre Pelican Island, a pelican and heron rookery in Florida, as a national bird sanctuary.

Today, over 530 national wildlife refuges have been established from the Arctic Ocean to the South Pacific, from Maine to the Caribbean. Varying in size from half-acre parcels to thousands of square miles, they encompass more than 92 million acres of the Nation's best wildlife habitats. The vast majority of these lands are in Alaska, with the remainder spread across the rest of the United States and several U.S. territories.

Like Pelican Island, many early wildlife refuges were created for herons, egrets, and other water birds. Other refuges were set aside for large mammals like elk and bison. But by far the most have been created to protect migratory waterfowls. This is a result of the United States' responsibilities under international treaties for migratory bird conservation and legislation such as the Migratory Bird Conservation Act of 1929.

National wildlife refuges offer the public a wide variety of wildlife-dependent recreational and educational opportunities. Many refuges have fishing and hunting programs, visitor centers, wildlife trails, and environmental education programs. Nationwide, some 34 million visitors annually hunt, fish, observe, and photograph wildlife or participate in interpretive activities on Service national wildlife refuges.

The National Wildlife Refuge System is one of the most unique and unmatched collections of public land in the world. Many refuges are close to urban areas and almost every part of the country has a refuge nearby. Here are just a few facts that make refuges interesting and unique.

"To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations."

Mission of the National Wildlife Refuge System

- In 1935, Red Rock Lakes NWR (Montana) was created to save the last 73 endangered trumpeter swans known in the wild. Today, 16,000 of the majestic birds are found in Alaska, Montana, and the upper Midwest. Minnesota is reported to have over 500 resident birds.
- The Aleutian islands of Attu and Kiska in Alaska Maritime NWR were seized by Japan in World War II, the only U.S. lands controlled by a foreign power since the War of 1812.
- One of the largest U.S. swamps, the 600 square mile Okefenokee NWR (Georgia) is also a National Wetlands Conservation Site and home to 15,000 alligators and carnivorous plants such as the hooded pitcher plant and golden trumpet.

The Glacial Ridges

The demise of Glacial Lake Agassiz during the last ice age left permanent marks on the landscape. An extensive tallgrass prairie and wetland complex was created among the beach ridges left after the withdrawal of the massive lake. The marshes were sustained by the ground water held with the beach ridge structure.



Natural forces such as floods and fire were constantly at work to maintain the balance of this ecosystem before humans exerted their interests onto the land. The water levels within the beach ridge wetlands adjusted to the seasonal deposition of rainfall and snow. The area is reported to have abounded with wildlife attracted to the tallgrass prairie, wet prairie and marshland habitats.

Native Americans were the first humans to visit the Glacial Ridge area. They undoubtedly were attracted by the migrations of bison, elk, ducks, geese and cranes during the spring and fall. Grassland species such as prairie chickens were locally abundant. With the existence of deep water lakes and hardwood forest area just several miles to the east, the area would have provided conditions for hunting, fishing, and gathering opportunities.

European immigrants first arrived in the area in the early in the 19th century. The historic Red River Trail system passed through the area. The trails were used for trade and immigrant travel between the Selkirk Settlement, near present-day Winnipeg, and St. Paul from 1820-70. An oxcart route, the Woods Trail, passed through the west end of the study area.

Early settlers in the region established farmsteads among the beach ridges. Hay was harvested from the ridge tops for livestock feed for these farms while the wetlands and fens provided water. Large-scale draining in the Tilden township area began in 1920 with drainage of several large wetlands north of Maple lake. Drainage continued until just a few years ago when significant funds were expended to breach several existing beach ridges in an attempt to drain out the interior waters.

Today, portions of the former beach ridge wetland complex that were converted for pasture/ hay lands are annually planted to soybeans or to wheat. A high water table and frequent springtime flooding events still place significant limits on farming success in the basin.

IV. Public Involvement

Involvement by local government officials, organizations, landowners and other interested citizens is integral to planning for any new national wildlife refuge. Proposals that involve land acquisition by a government agency can be controversial. To date this has not occurred with the Glacial Ridge proposal. Open communication with all parties is essential throughout the planning process. Starting in July 2000, the Service has provided information about the proposed project through news releases, interviews, open house events, group presentations, letters/newsletters to landowners and one-on-one discussions.

Background

A Preliminary Project Proposal for a refuge within the study area was developed by Service biologists in May 1999. The purpose of this report was to brief the Director of the U.S. Fish and Wildlife Service about the resource conservation opportunities of the area and to obtain permission to conduct a study of the merits of the proposal. The proposal was approved by the Director on May 1, 2000.



Detailed planning began in July 2000 with informal meetings and discussions with local conservation groups, government officials and some resident landowners. We also mailed a letter to all landowners in the study area explaining the start of the refuge planning process. The letter included a postage-paid postcard for landowners to request a personal visit to discuss the project, if they desired one. The project manager made several requested visits and evening phone calls. The Nature Conservancy (TNC) announcement of the purchase of Tilden Farms, an area we were also considering for protection and restoration, prompted the Service to begin public scoping for the refuge proposal.

Beginning with our public announcement in July, through September 2000, the refuge project planning staff has placed or received over 100 telephone calls, made 15 personal visits with landowners and have given several radio interviews and group presentations related to the refuge proposal. In addition, an open house event was held on July 12th at the Rydell National Wildlife Refuge to introduce the refuge proposal. The event was well attended with a total of about 30 people stopping by to discuss the proposed refuge. People were encouraged to ask questions and fill out written comment forms.

Issues, Opportunities and Concerns

The volume of questions and concerns has been relatively light compared to other recent refuge proposals in the Midwest Region. Many written and verbal comments have been in favor of the general concept of wildlife habitat restoration in the area. The most frequent concern expressed to us has been the potential for loss of taxes resulting from lands being transferred from private to public ownership. A concern expressed to us by two landowners related concerns on the potential impacts of wetland restoration on drainage capabilities for their adjacent land.

Public Comments

The Service has received about 20 letters, comment forms, postcards and e-mail messages from people concerning the proposed refuge. Comments were received primarily from landowners and governmental offices. Only one e-mail comment expressed opposition to the project.

Local Township Comments

The proposed Glacial Ridge Refuge would encompass the majority of Tilden Township. Tilden Township has not had its own independent township board for many years because of the small resident population. Its residents joined with Park Grove Township to the east for administrative purposes. In addition, portions of three other townships could be partly included within the refuge boundaries. Comments received from townships have dealt with taxes and a concern over the continued availability of inexpensive road gravel from the gravel pits existing on the Tilden township lands.

Issues and concerns identified during scoping helped the Service identify and evaluate strategies for the proposed action. Individual comments expressed during the open house or received in writing have included the following themes:

Natural Resource Issues

- Loss of Wildlife Habitat
- Water Quality/Wetland Function
- Loss of Biological Diversity

Socioeconomic Issues

- Impact on Taxes
- Local Economic Impact
- Crookston water well protection

Local Land Use Issues

- Restoration of lost prairie and natural hydrology
- Additional Landowner Options for Land Conservation Drainage Conflicts and Drainage Districts
- Landowner Rights
- Planning Process Issues
- Public Input/Review
- Gravel mining operations/gravel taxes
- Farm leases prior to restoration work

These issues will be discussed as an integral part of the Alternatives and Environmental Consequences chapters in this EA. In addition, we have included a list of frequently asked questions.

Property Taxes

Property taxes are a frequent issue whenever government acquisition of private land is proposed. Property taxes on agricultural lands vary from approximately 0.75 percent to about 2.0 percent of the market value of land in Minnesota. The actual amount levied each year varies according to the needs of local taxing jurisdictions and the property tax classification of each parcel. For example, the taxes levied on certain “homesteaded” property in Minnesota are about 0.75 percent of value, while on similar “non-homesteaded” property it may be as much as 2.0 percent of value.

Any lands acquired in fee/full title by the Service will no longer be on the local taxing jurisdictions' property tax rolls. Provisions for payment in-lieu of taxes (PILT) by a special trust and existing federal and state reimbursements are discussed in Chapter 4.

Wetland Restoration and Drainage

If restored, a minimum of 8,000 acres of the of the overall project area would be classified as "wetland" under current state and Federal wetland delineation guidelines. The vast majority of original wetlands within the beach ridge study area have been drained or subjected to attempts at drainage. Two landowners mentioned the potential impacts of large-scale wetland restoration on drainage capabilities for their adjacent land.

Opportunities for native seed revenues, tourism and hunting leases on adjacent lands were recognized as positive economic opportunities. Possible economic benefits from forage use (bison grazing) was also mentioned.

V. Decisions

This Environmental Assessment is an important step in the Service's formal decision-making process. In compliance with the National Environmental Policy Act, the Regional Director, Great Lakes-Big Rivers Region, will consider the information presented in this document to select one of the alternatives.

The Regional Director will determine whether the preferred alternative will or will not have a significant impact on the quality of the human environment and issue a Finding of No Significant Impact or a Decision of Significant Impact. A Finding of No Significant Impact (FONSI) means that the preferred alternative is accepted and can be implemented in accordance with other laws and regulations. A Decision of Significant Impact would indicate the need to complete an Environmental Impact Statement or a rejection of the project proposal.

VI. Legal Compliance

The Service planning process, land acquisition and management are done in accordance with authority delegated by Congress and as interpreted by Department of the Interior and agency regulations and guidelines. Land acquisition authority includes the Migratory Bird Conservation Act, Endangered Species Act, Emergency Wetlands Resources Act and the Fish and Wildlife Act. Land management authority, including comprehensive conservation planning, is directed primarily by the National Wildlife Refuge System Improvement Act of 1997. Other relevant Acts and Executive Orders are listed in the Appendices.

Establishing Authority

Lands acquired by the Service for the proposed Glacial Ridge NWR would be purchased under the authority of the Migratory Bird Conservation Act and the Emergency Wetland Resources Act of 1986.